

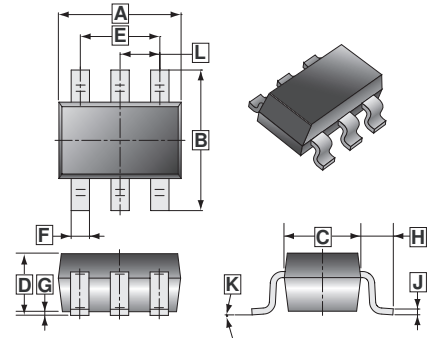
RoHS Compliant Product  
A suffix of "-C" specifies halogen and lead-free

## DESCRIPTION

The KS05VL04 is a transient voltage suppressors (TVS) which provide a very high level protection for sensitive electronic components that may be subjected to electrostatic discharge (ESD). It is particularly well-suited for cellular phones, PMP, MID, PDA, digital cameras and other electronic equipments.

The KS05VL04 is safely dissipating ESD strikes to meet the ESD immunity testing of IEC61000-4-2 level 4 ( $\pm 15\text{kV}$  air,  $\pm 8\text{kV}$  contact). Using the MILSTD-883 (Method 3015) specification of Human Body Model (HBM), the device provides protection to greater than  $\pm 10\text{kV}$ .

## TSOP-6



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.10	G	0	0.10
B	2.60	3.00	H	0.60	REF.
C	1.40	1.80	J	0.12	REF.
D	1.10	MAX.	K	0°	10°
E	1.90	REF.	L	0.95	REF.
F	0.30	0.50			

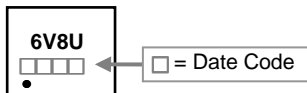
## APPLICATIONS

- Digital Cameras
- Portable Instrumentation
- Notebooks, Desktops, and Servers
- Personal Digital Assistants (PDAs)
- Cell phone handsets and accessories

## FEATURES

- low clamping voltage
- Low leakage current
- Small package

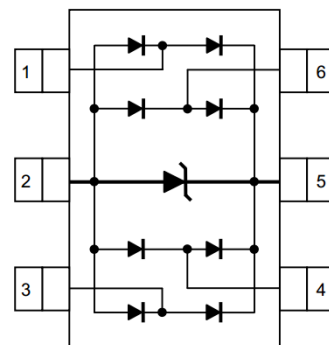
## MARKING



## PACKAGE INFORMATION

Package	MPQ	Leader Size
TSOP-6	3K	7 inch

## Top View



Schematic And Pinning Diagram

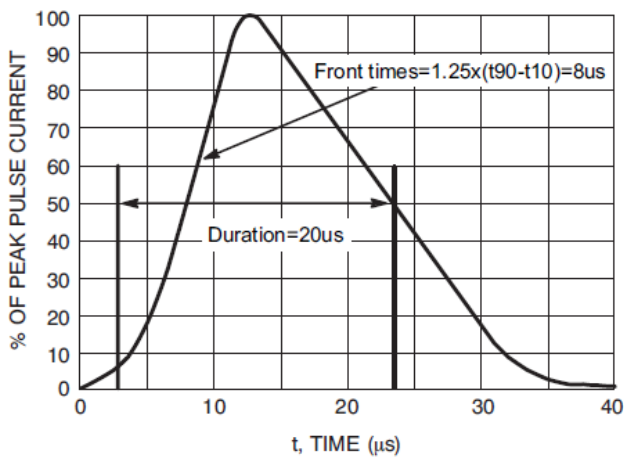
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Rating		Symbol	Value	Unit
IEC 61000-4-2 (ESD)	Air contact	$V_{\text{ESD}}$	$\pm 15$	kV
	Contact discharge		$\pm 8$	
Peak pulse power ( $t_p=8/20\mu\text{s}$ )		$P_{\text{PK}}$	75	W
Peak pulse current ( $t_p=8/20\mu\text{s}$ )	$V_{\text{DD-GND}}$	$I_{\text{PP}}$	5	A
	I/O-GND		4	
Storage temperature range		$T_J, T_{\text{STG}}$	150, -55 ~ 150	$^\circ\text{C}$
Lead temperature		$T_L$	260	$^\circ\text{C}$

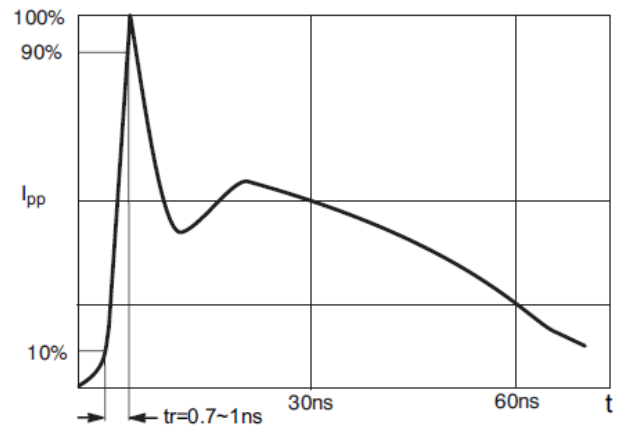
**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Units
Reveres maximum working voltage	$V_{RWM}$		-	-	5	V
Reveres leakage current	$I_R$	$V_{RWM}=5\text{V}$	-	-	1	$\mu\text{A}$
Reveres breakdown voltage	$V_{BR}$	$I_T=1\text{mA}$ , I/O-GND	6.5	8	8.8	V
		$I_T=1\text{mA}$ , $V_{DD}$ -GND	5.8	7.3	8.1	
Forward voltage	$V_F$	$I_F=10\text{mA}$	0.5	0.7	1	V
Clamping Voltage	$V_C$	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	12	V
		$I_{PP}=4\text{A}$ , $t_p=8/20\mu\text{s}$	-	-	20	V
Junction capacitance	$C_J$	I/O-GND	-	0.7	0.8	pF
		I/O-I/O	-	0.35	-	pF

**RATINGS AND CHARACTERISTICS CURVES**



8/20us waveform



IEC61000-4-2 waveform

**RATINGS AND CHARACTERISTICS CURVES**

